

# Sustainability Report 2024

**TAKRAF**  
For Mining with Meaning.



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# Message from Our Group CEO



**CSRD is an opportunity  
to embed responsibility  
at the heart of our strategy** 

**Thomas Jabs**  
Group Chief Executive Officer (CEO)

Dear Stakeholders,

Our second Sustainability Report marks a clear commitment by TAKRAF Group to accelerate our transformation towards sustainable growth. The past year has shown us how preparing for the European Corporate Sustainability Reporting Directive (CSRD) can be more than a compliance exercise: it is an opportunity to embed responsibility at the heart of our strategy, to win the trust of our stakeholders and to strengthen our long-term competitiveness in global markets.

Sustainability is deeply rooted in our history. For three centuries, we have adapted to the challenges of each era – beginning in 1725, when Baroness von Löwendal commissioned the first blast furnace in Lauchhammer, Germany. That initial spark of industrial innovation laid the foundation for a global engineering group at the forefront of mining, material handling and minerals processing. As we approach our 300-year anniversary in 2025, we recognize that our enduring success depends on combining this legacy of innovation with an unwavering commitment to sustainable development.



## TAKRAF Group continues to build on its legacy and prepare for the challenges and opportunities of the decades ahead

Over the past year, our focus on sustainability has sharpened our competitive edge. Clients increasingly demand solutions that reduce emissions, conserve energy and water and uphold the highest safety standards. Investments in sustainable technologies, such as the electrification of material transport, support clients in decarbonizing operations while creating new opportunities for growth in future-oriented commodity markets. Sustainable products, technologies and services are now decisive factors for success on the international stage.

Achievements across the Group demonstrate the strength of this approach. DELKOR India marked 25 years of operations and reached an outstanding milestone of 2 million safe man-hours without a Lost Time Injury (LTI). The three winners of our 2024 Innovation Challenge all demonstrated that sustainable goals can spark great ideas and innovations that benefit both our clients and the environment.

These milestones reflect TAKRAF Group's resilience, adaptability and innovative spirit. They also highlight the shared commitment of our teams and stakeholders to sustainability, ensuring that responsibility and industrial progress remain closely intertwined. Embedding sustainability into strategy, strengthening governance and listening to stakeholders ensure that TAKRAF Group continues to be a trusted partner for clients worldwide while shaping a future that balances innovation with environmental and social responsibility.

This Sustainability Report is not only a record of achievements but also a statement of intent. By driving innovation, pursuing sustainable solutions and seizing opportunities in emerging markets, TAKRAF Group continues to build on its legacy and prepare for the challenges and opportunities of the decades ahead.

Sincerely,



**Thomas Jabs**  
Group Chief Executive Officer

## Over the past year, our focus on sustainability has sharpened our competitive edge

- Further reduction in emissions
- Even higher safety standards
- New opportunities for growth in future-oriented commodity markets



### Sustainability Approach:

- Complying with Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standard (ESRS) with our Environmental, Social and Governance (ESG) report laying the groundwork for future environmental actions.
- Identifying environmental impacts, risks and opportunities as a foundation for future strategies.
- Developing climate strategies focused on reducing emissions and improving energy efficiencies across the value chain.



### Sustainable Solutions and Innovation:

- Efficient technologies such as In-Pit Crushing & Conveying (IPCC) systems, Gearless Conveyor Drives (GCDs) or High Pressure Grinding Rolls (HPGRs), which reduce energy consumption.
- DELKOR dewatering products, which contribute to fresh water saving and increased process water use, such as thickeners, belt filters or filter presses.
- Circular economy focus on durable, repairable and recyclable products such as our TAKRAF Sizer and associated spares.



### Environmental Impact of Operations:

- Energy consumption reduced by approximately 2% between 2023 and 2024.
- Greenhouse Gas (GHG) emissions reduced, with CO<sub>2</sub> emissions cut by around 5%.
- Active pollution reduction through intelligent design solutions reducing the number of transfer stations in a material handling system.

# Highlights 2024



### Compliance and Responsible Sourcing:

- Strict adherence to international standards such as ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 certification across a number of our offices.
- Anti-corruption measures and whistleblowing system compliant with European Union (EU) laws and requirements.
- Use and promotion of sustainable products, even when not legally required.
- Established the role of Head of Group Legal, Compliance and Insurance to further strengthen governance structures across the organization.



### Employee Engagement and Development:

- An average of 953 employees worldwide, with 16% female representation (17% in 2023).
- Focus on diversity, equality and health protection through comprehensive Quality, Health, Safety and Environment (QHSE) policies.
- Strong employee involvement in decision making to ensure diverse perspectives are considered.



3,600 t/h stacking / 1,320 t/h reclaiming TAKRAF Stacker/Reclaimer for iron ore pellets, North America

# Key Projects 2024



3D model of a dynamic pilot plant for DELKOR BQR MAXGen Flotation Cells

## Significant Project Award



### Major Contract to Supply Equipment for the World's Largest Thickened Tailings Project

TAKRAF Group was awarded a major contract to supply seven DELKOR High-Density Thickeners for the Talabre Thickened Tailings Project (PRET) in Chile. This solution provides long-term, safe disposal of copper tailings from Codelco's Ministro Hales and Chuquicamata mines.

#### Highlights

- Significant recovery of process water reduces freshwater demand.
- Efficient tailings handling lowers emissions of particulate material and improves air quality.
- Supports safe, sustainable tailings management and extends the life of existing facilities.

## Research & Development (R&D)



### Semi-Mobile De-Watering Plant for Dry Stack Tailings (DST)

TAKRAF Group is developing a de-watering plant for DST, integrating linear thickeners, horizontal belt filters and associated equipment into ISO-standard shipping container frames. These modules can be connected and stacked to create a scalable system.

#### Highlights

- Maximizes water recovery for reuse in mining operations.
- Compact design minimizes site disruption and infrastructure needs.



### Dynamic Pilot Plant for DELKOR BQR MAXGen Flotation Cells

A dynamic, containerized pilot plant is being developed to test the suitability of DELKOR BQR MAXGen Flotation Cells in various applications. Its transportable design allows deployment at any site worldwide.

#### Highlights

- Enables testing to improve energy efficiency and reduce water and chemical usage in mineral processing.
- Containerized design reduces logistics emissions and allows local testing without building permanent infrastructure.

# About This Report

For three centuries, our products and services have helped to meet the essential challenges of each era. Today, this legacy drives our role in the energy transition, where we support the extraction of critical metals required for a more sustainable future. Our deep-rooted belief in the power of technology makes us the best possible partner for our clients.



ESG principles are firmly embedded in our governance structure. Based on the double materiality analysis we conducted for last year's report, we ensure that our ESG efforts reflect the expectations, needs and priorities of those who matter most to us. Ultimately, we took a “wisdom of crowds” approach, conducting a comprehensive survey of key internal and external stakeholders.

Looking ahead, we remain committed to continuously enhance our ESG reporting and develop targeted sustainability measures over the next three to five years. As an engineering company, we thrive on designing innovative solutions and delivering exceptional performance. With this same mindset, we will continue to support our clients and employees, while further strengthening governance across the Group.

Building on three centuries of innovation, trust and excellence, TAKRAF Group is committed to turning sustainability into a lasting competitive advantage for our stakeholders worldwide.

TAKRAF Group is voluntarily reporting in accordance with the European Sustainability Reporting Standards (ESRS) and the Corporate Sustainability Reporting Directive (CSRD) for the fiscal year 2024, well ahead of the mandatory requirement in 2028 (fiscal year 2027). This proactive step highlights our commitment to transparency and corporate responsibility.

This document represents an accessible version of the ESRS-compliant report, which is available in full on our website. Please note that this version is not, in itself, ESRS compliant.

[www.takraf.com/about-us/sustainability](https://www.takraf.com/about-us/sustainability)

# TAKRAF Group's Business

TAKRAF Group provides leading technological solutions to the global mining, bulk material handling and minerals processing industries through its established and well-known brands, TAKRAF and DELKOR.



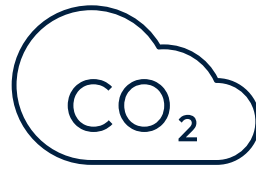
TAKRAF is recognized as one of the world's leading technology providers when it comes to run-of-mine and bulk material handling. Its comprehensive portfolio covers the entire value chain: from overburden removal and raw material extraction, to comminution, conveying, loading and unloading, processing, homogenizing, blending, storage and final loading for onward shipment. These systems are designed not only for efficiency and reliability, but also with a clear focus on sustainability and reduced environmental impact.

DELKOR specializes in liquid/solid separation and wet processing, offering equipment such as thickeners, belt filters and filter presses for dewatering and flotation cells, jigs and screens for processing. These solutions are tailored to the specific requirements of the mining industry, ensuring robustness, operational reliability and measurable reductions in water and energy consumption. By combining process efficiency with environmental responsibility, DELKOR supports clients in maximizing performance while lowering operational costs.



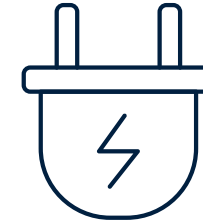
TAKRAF Group headquarters in Leipzig, Germany

With three centuries of engineering expertise, TAKRAF Group continues to build on its legacy. From single machines to fully integrated turnkey systems, we work in close partnership with our clients worldwide – developing customized solutions that not only meet today’s operational challenges but also contribute to a more sustainable future.



Ca. **2%**

energy savings  
in 2024\*



Ca. **5%**

reduction of  
emissions in 2024\*

\*Baseline 2023, more information on page 18

**Products Are Offered Across Four Main Categories:**



**Mining Systems and Equipment**

Covers excavating, crushing plants, conveying, spreading (dumping) and various auxiliary equipment.



**Bulk Material Handling**

Covers stockyard & disposal facilities, loading & unloading equipment, conveying, port facilities, continuous heap leach systems and various “inplant” handling equipment.



**Minerals Processing**

Covers comminution, liquid/solid separation, wet processing and various DST solutions.



**Services & Components**

Covers project development services, construction & commissioning, fabrication & components and technical services & spares.

# Group Headquarters in Leipzig, Germany, with a Global Footprint

**3**  
global  
competence centers

Offices in  
**13**  
countries

Across  
**22**  
locations



# Material Topics

Based on the comprehensive double materiality analysis conducted by TAKRAF Group for last year's sustainability report, both financial and non-financial materiality aspects were assessed, thus enabling the identification of key ESG issues in line with the business strategy. This assessment followed CSRD and ESRS guidelines.



Using a mix of quantitative and qualitative methods, the analysis engaged internal and external stakeholders to evaluate impact materiality (ESG effects) and financial materiality (risks and opportunities) over a three- to five-year horizon.



10,000 t/h TAKRAF Conveyor for copper, USA

The double materiality analysis resulted in a clear ranking of ESG topics based on their overall relevance, considering both their impact and financial materiality. These are the most material topics:

**1. Business Conduct**

Ranked as the highest priority with a score of 1.6, this topic underscores TAKRAF Group’s commitment to ethical business practices and legal compliance – essential for maintaining trust and long-term viability.

**2. Water and Marine Resources**

With a score of 1.3, this topic is closely linked to TAKRAF Group’s DELKOR brand, whose liquid/solid separation technologies play a significant role in reducing water consumption and improving resource management.

**3. Climate Change**

Scoring 1.2, climate change is a central element of TAKRAF Group’s strategy, with a strong focus on energy efficiency and emission reduction in its operations and product design.

**4. Own Workforce**

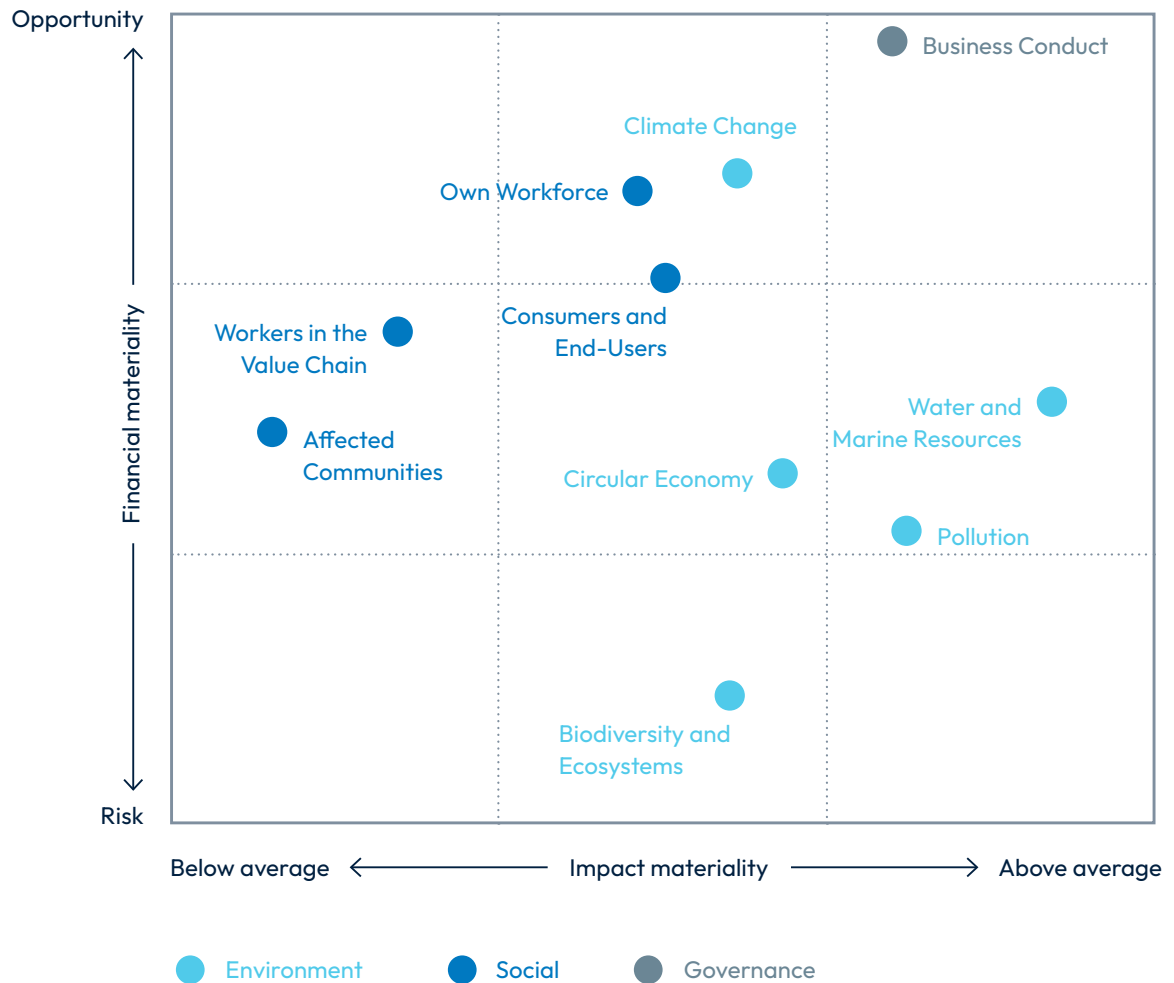
At 1.0, this topic highlights TAKRAF Group’s emphasis on employee safety, wellbeing and development – recognized as essential pillars of long-term business success.

**5. Pollution and Consumers and End-Users**

Both scored 0.9, reflecting TAKRAF Group’s dual commitment to minimizing environmental pollution and ensuring product safety, quality and reliability for customers worldwide.

We see ESG considerations as key opportunities for growth, particularly in resource efficiency, innovation and sustainable partnerships. DELKOR products, for example, can have a significant positive impact on water management.

**Materiality Matrix**



We don’t anticipate major financial risks from ESG factors in the near future. In line with our business model, we have integrated additional sub-topics into our ESG reporting, such as business model innovation, ethics and supply chain security, all under “Business Conduct”. In 2024, we also reviewed data inputs, corrected for measurement and

documentation errors and implemented Scope 1 and Scope 2 measurement for FY 2023 and 2024. Looking ahead, we will continue strengthening our ESG data systems and reporting to remain aligned with stakeholder expectations and evolving regulatory standards.

# Our Sustainability Framework

Following the double materiality analysis, we developed a Sustainability Framework to address our most material topics with targeted measures and to clearly communicate our sustainability goals.

The process was launched together with managers from multiple disciplines and key internal partners, who worked jointly to shape the framework and define a shared sustainability mission. The outcome remains:

- We are pioneers in the sustainable transformation of our industry.
- We support our employees, customers, suppliers and partners to grow and innovate while safeguarding the well-being of our planet.
- We contribute to a resilient and just world by acting responsibly.

This mission continues to serve as our overarching commitment. TAKRAF Group is pursuing it through targeted sustainability measures built around three major pillars that reflect core ESG topics.



## E – Environment

We possess an overriding commitment to the environment in which we live and operate.



## S – Social Responsibility

We ensure a safe, respectful work environment and offer socially responsible products and services for all stakeholders.



## G – Governance

We prioritize strong governance, especially compliance, in all our processes and collaboration with industry stakeholders.

Our commitment to sustainability is more than a corporate responsibility. It is a defining part of TAKRAF Group's identity. By aligning our actions with the Sustainable Development Goals (SDGs), we are taking meaningful steps toward a more sustainable future.



The following page maps the SDGs to our main pillars and illustrates them with our actions.



Sustainability ambition



## Environment

We lead the way in addressing the growing demands for sustainability across our industry.



## Social Responsibility

With 300 years of engineering expertise, we create innovative solutions that support the drive towards a carbon-neutral and environmentally friendly future.



## Governance

Our commitment to technology and strong governance ensures responsible solutions for a better tomorrow.

Pillars

We possess an overriding commitment to the environment in which we live and operate.

We ensure a safe, respectful work environment and offer socially responsible products and services for all stakeholders.

We prioritize strong governance, especially compliance, in all our processes and collaboration with industry stakeholders.

Focus areas

Climate Change

Pollution

Water and Marine Resources

Biodiversity and Ecosystems

Policies on Resource Use and Circular Economy

Commitment to a Diverse and Responsible Workforce

Commitment to Workers in the Value Chain

Commitment to Clients and End-Users

Commitment to Governance and Ethical Business Conduct



# Environment



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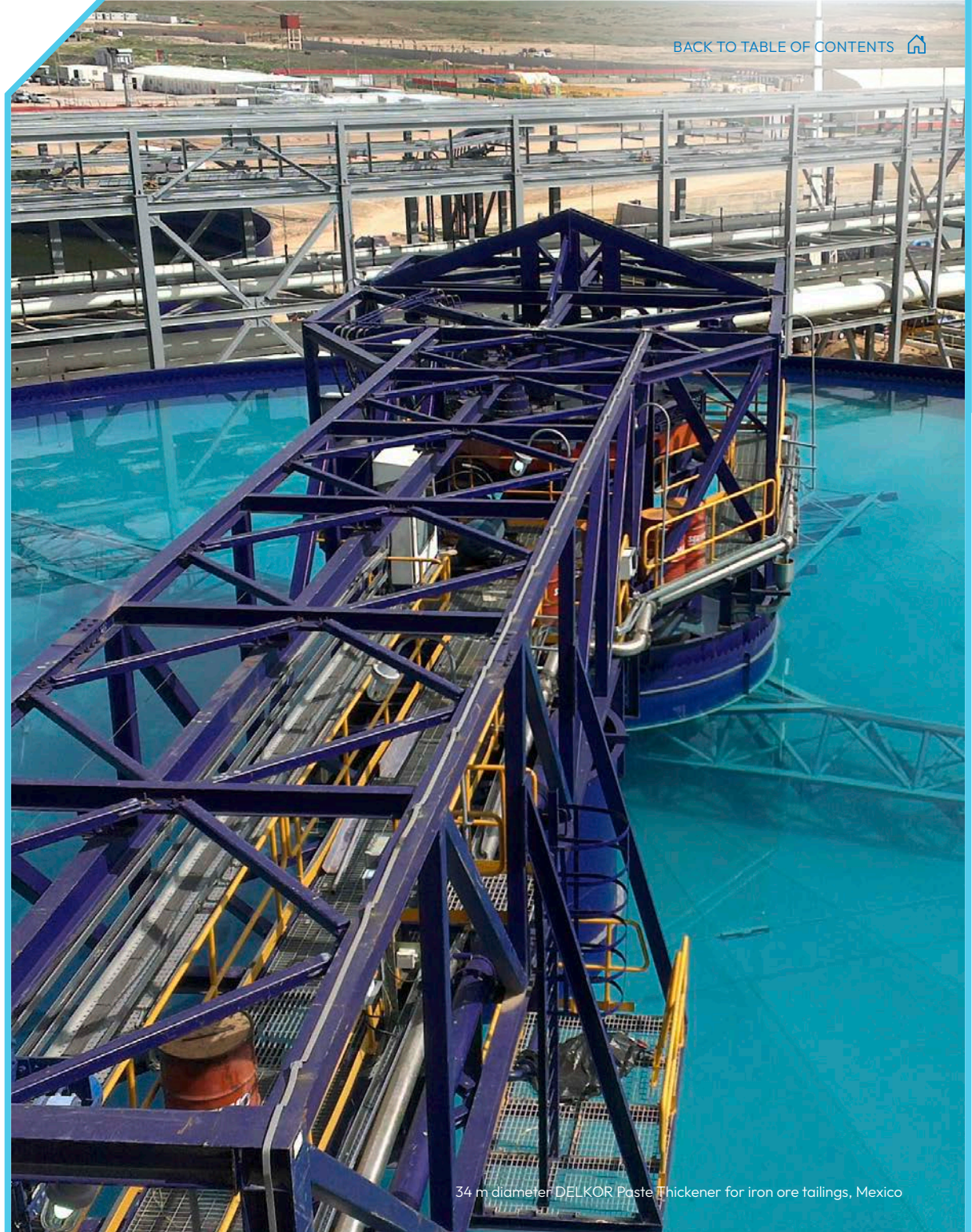
TAKRAF Overland Conveyor, 5.3km, 11,000 t/h, Chile.



## Transition Plan for Environmental Topics

TAKRAF Group does not yet have a formal transition plan dedicated specifically to environmental topics.

With the publication of our first Sustainability Report in 2023, we took an important initial step by identifying potential impacts, risks and opportunities – laying the groundwork for future action. This second report continues that process, providing further structure and continuity. It includes a systematic review of how our operations may affect ecosystems and the environment, serving as a solid foundation for developing more detailed strategies in the years ahead.



34 m diameter DELKOR Paste Thickener for iron ore tailings, Mexico

# 01 – Climate Change



## Climate Strategies

TAKRAF Group's climate policies are centered on reducing emissions both within its operations and throughout the industry value chain. Key focus areas include:



**Business Operations:** Lowering emissions and energy consumption through efficiency measures and the use of renewable energy.



**Product Impact:** Designing and promoting continuous mining systems that reduce GHG emissions, conserve resources and reduce energy consumption across all processes.



**Service Impact:** Providing expert support to help clients reduce emissions, from the planning phase through to operations.



**R&D Efforts:** Driving innovation in energy-efficient, low-emission products, including coarse particle recovery research, the development of a conveyability test rig and the “SmartSpreader” project, which reduces supplementary dozer operation by automating the continuous dumping process of a spreader.

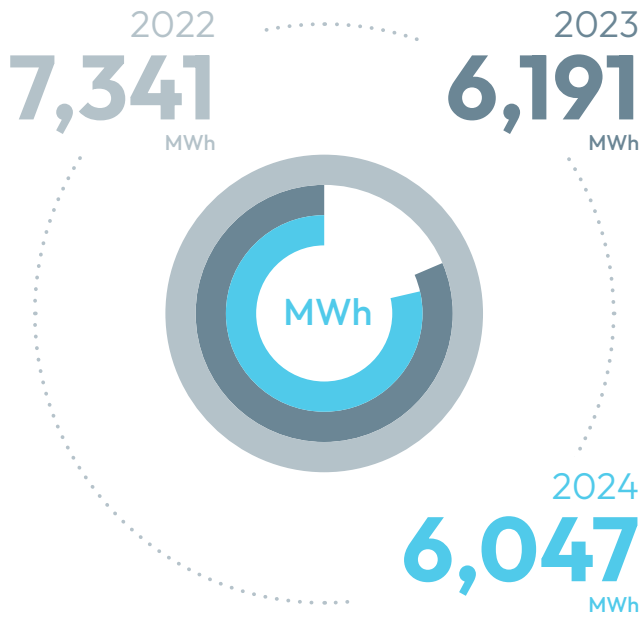
## Actions and Resources

TAKRAF Group applies innovative technologies to reduce energy use and GHG emissions across the entire value chain. Key innovations include:

- **In-Pit Crushing & Conveying (IPCC):** Materials are crushed directly in or near the mine and transported via efficient conveyors, reducing reliance on energy-intensive and polluting alternative transport systems.
- **High Pressure Grinding Rolls (HPGRs):** This technology uses high pressure to grind ore and rock with lower energy demand than traditional grinding processes, especially for hard materials. HPGRs also enhance downstream flotation efficiency, further improving overall processing.
- **Efficient and effective flotation cells:** DELKOR's BQR Flotation Cells with proprietary MAXGen mechanisms increase mineral recovery rates while reducing energy consumption, boosting overall process efficiency.
- **Gearless Conveyor Drives (GCDs):** A powerful and energy-efficient alternative to conventional drives in conveying systems. In 2024, TAKRAF Group renewed its strategic partnership with a leading global provider of electrification and automation for the deployment of GCDs.

### Energy Consumption

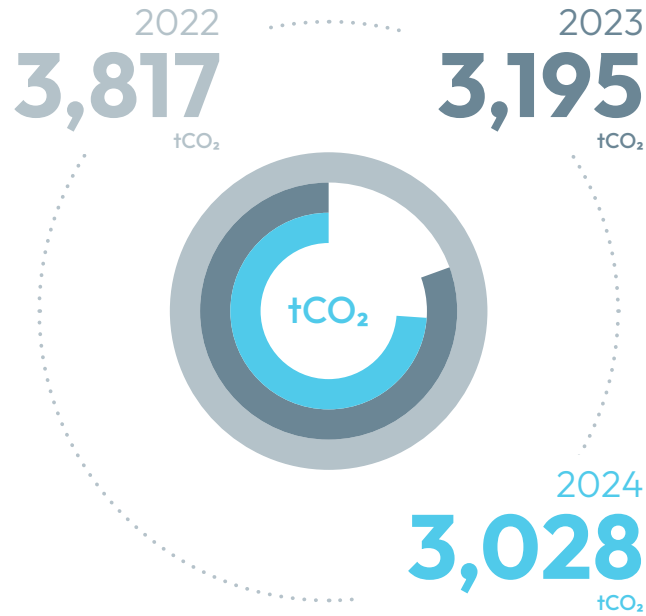
TAKRAF Group's total energy consumption decreased noticeably between 2022 and 2024, underscoring the success of our efficiency measures. The following figures illustrate this progress:



This reduction is particularly significant given our operations span multiple countries, offices and regulatory environments.

### GHG Emissions

TAKRAF Group has also seen a decrease in its GHG emissions:



This reduction is directly linked to lower energy consumption. TAKRAF Group's operational emissions mainly result from:

- Electricity use:** The largest share comes from electricity consumption, which depends on the local energy mix of renewables and fossil fuels.
- Heating:** Facilities in colder regions require additional energy for heating, adding to overall emissions.
- Vehicle fuel use:** Company vehicles operating across sites also contribute to the CO<sub>2</sub> footprint.

Further emission reductions will largely rely on increasing the share of renewable energy and other cleaner energy sources.

# 02 – Pollution

## Environmental Pollution Strategies

TAKRAF Group's pollution strategies focus on four key areas:



**Business Operations:** Across offices and workshops, TAKRAF Group actively works to prevent air, soil and water pollution, continuously adopting cleaner practices to reduce environmental impact.



**Product Impact:** TAKRAF Group designs its equipment and solutions to meet the demands of the mining industry while minimizing soil and air pollution, noise and environmental risks. By leveraging both TAKRAF and DELKOR brands, the Group enhances tailings management safety and sustainability through DST equipment.



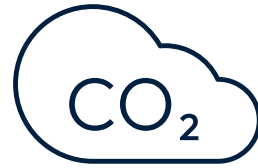
**Service Impact:** Our specialists guide clients throughout the equipment selection process, advising on optimal sizing for specific processes. Aftersales teams monitor performance and conduct regular site inspections to ensure efficient operation, reduce downtime and maintain environmental standards.



**R&D Efforts:** Innovation drives the reduction of pollution. TAKRAF Group's R&D teams continuously develop new technologies and improve existing solutions to lower environmental impact across the industry value chain.



7,200 t/h TAKRAF Reclaimer for iron ore, Brazil



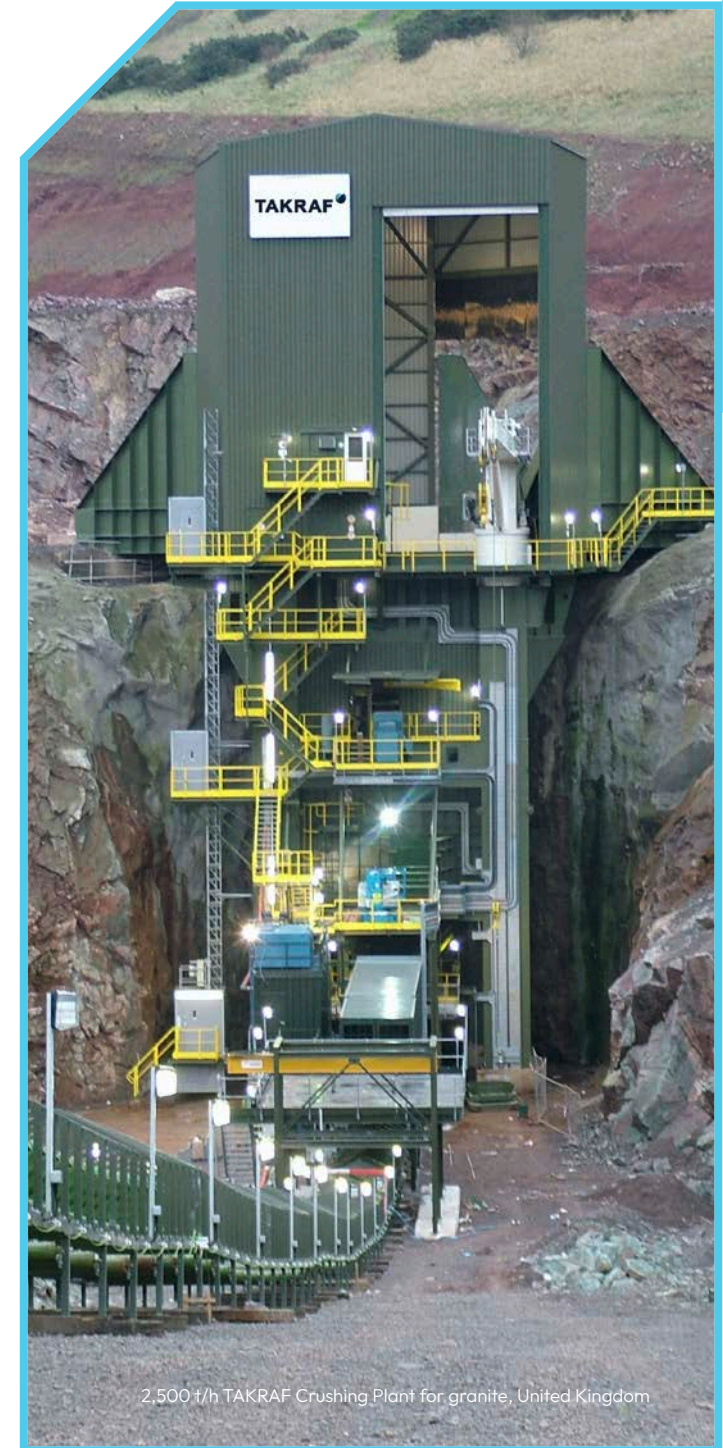
# 66%

reduction in  
CO<sub>2</sub> emissions\*

## Actions and Resources

TAKRAF Group is taking concrete measures to reduce environmental pollution across its operations and product lines. For example, the company has revised its car fleet policy to prioritize electric vehicles where possible, depending on regional availability. Additionally, TAKRAF Group's equipment and service innovations contribute to pollution reduction throughout the value chain:

- Emissions Reduction** through Gearless Conveyor Drives (GCDs). Together with a specialized drive partner, gearless drive technology is applied to conveyor drive pulleys. GCDs eliminate the need for a gearbox, boosting efficiency, reliability and reducing maintenance. The technology also cuts the system's footprint and emissions – for a large copper mine in Chile, studies showed a 66% reduction in CO<sub>2</sub> emissions compared to diesel trucks for the same production volume.
- Dust reduction** through the use of tube conveyors, minimized transfer points, extra-long conveyors (up to 7 km in a single flight) and advanced dust extraction systems, which reduce the reliance on heavy-duty trucks and limit airborne particles.
- Noise reduction** technologies, such as long conveyors with fewer drives and transfer points, or bucket-wheel excavators where applicable, decrease noise and vibrations by eliminating the need for blasting.
- Water management solutions**, such as DELKOR's dewatering equipment that promotes the re-use of process water. Furthermore, TAKRAF Group's DST offering indirectly reduces pollution, since process water is reused in the plant instead of being stored in tailing dams and groundwater contamination through seepage is virtually eliminated.



2,500 t/h TAKRAF Crushing Plant for granite, United Kingdom

\*compared to diesel truck engines for the same copper production volume



## 03 – Water and Marine Resources

### Water and Marine Resources Strategies

TAKRAF Group's approach to water and marine resources focuses on four key areas:



**Business Operations:** Many of TAKRAF Group's offices and operational sites are located in regions facing significant water-related challenges, including Australia, Brazil, Chile, India, and South Africa. TAKRAF Group is committed to reducing its water consumption in these areas by carefully managing its use of water and handling wastewater in an environmentally responsible manner.



**Product Impact:** DELKOR's dewatering products, such as thickeners, belt filters and filter presses, reduce the need for fresh water, increase recycling rates and minimize waste. Combined with DST solutions, these products are particularly suited to water-scarce mining operations. TAKRAF's harbor and port equipment, including ship/barge loaders, unloaders and tube conveyors, ensures safe material handling without polluting nearby water sources.



**Service Impact:** TAKRAF Group supports clients throughout the entire project lifecycle, from planning and designing to the installation and operation of its equipment. Specialists recommend solutions tailored to client operations to optimize water use and prevent marine pollution. Aftersales services, including performance monitoring, enable adjustments that reduce water consumption and wastewater, promoting sustainable practices in water-stressed regions.



**R&D Efforts:** Innovation continues to drive water efficiency. TAKRAF Group's R&D teams develop and test new products both in laboratories and at client sites, aiming to help clients reduce their water footprint, which is a growing demand from our stakeholders (local communities, clients, regulators etc.). Currently, DELKOR is researching the feasibility of a semi-mobile de-watering plant for DST and a dynamic pilot plant for DELKOR BQR MAXGen Flotation Cells.

As part of the 2024 Innovation Challenge, the semi-mobile de-watering plant for Dry Stack Tailings impressed with its modular design based on ISO-standard shipping container frames. Likewise, the flexible and universal platform for selecting processing plants combines reusability with adaptability, offering a smart alternative to rigid, standardized systems. Both concepts demonstrate how intelligent design and modularity can drive efficiency and simplify operations in plant engineering.



55 m diameter DELKOR Thickener for fluorspar, Vietnam



DELKOR BQR Flotation Cells with MAXGen, installed at a major PGM project in South Africa

85 m<sup>2</sup> DELKOR Horizontal Belt Filters for iron ore, Australia

### Actions to Reduce Water Use

TAKRAF Group's DELKOR brand offers a range of dewatering equipment designed to help industries reduce fresh water consumption and waste:

- DELKOR Thickeners:** These units recover and recycle process water, reducing or even eliminating the need for tailings dams. Water recovery rates range from 60% to 93%, significantly reducing freshwater usage.

- DELKOR Horizontal Belt Filters (HBF):** Utilizing vacuum filtration, HBFs provide high-capacity dewatering for a wide range of commodities across various industries. DELKOR pioneered their use for acid filtration and they are now widely applied for tailings filtration as well.

- DELKOR Filter Presses:** Applying pressure to dewater a wide range of commodities, filter presses produce dry filter cakes that can be safely handled. They are typically used downstream of mining or mineral processing plants, as well as in chemical or fertilizer plants or Effluent Treatment Plant (ETP), to manage tailings and waste sludge efficiently.

### Water Consumption Data

TAKRAF Group actively monitors water usage across its offices and workshops worldwide. In 2024, the Group withdrew approximately 3,526 cubic meters of drinking water.

This tracking demonstrates TAKRAF Group's commitment to understanding its environmental impact and identifying opportunities for improvement. Collecting this data is a crucial first step in setting meaningful targets and measuring progress over time.

# 04 – Biodiversity and Ecosystems

## Biodiversity and Ecosystems Strategies

TAKRAF Group's approach to biodiversity is integrated into its broader sustainability policies and focuses on four key areas:



**Business Operations:** TAKRAF Group is aware of the importance of biodiversity at its operating sites and manages its impact in a responsible manner. This includes ensuring that its activities do not harm local ecosystems surrounding its offices, workshops and operational facilities.



**Service Impact:** TAKRAF Group's services promote ecosystem protection by addressing deforestation, desertification and land and sea degradation. They enhance resource efficiency and minimize waste while protecting local biodiversity.



**R&D Efforts:** Innovation drives biodiversity protection. TAKRAF Group's R&D develops, tests and refines solutions, equipment and services to reduce ecological footprints. This includes laboratory and on-site testing to develop practical options, which have a lower environmental impact for clients.



**Product Impact:** Our equipment is designed to minimize environmental effects, indirectly supporting biodiversity. By reducing land use, such as the need for tailings dams in mining operations, TAKRAF Group helps prevent land degradation, desertification, soil sealing and groundwater contamination, which is critical to preserving ecosystems.



## Financial Impact of Biodiversity and Ecosystems Efforts

Our commitment to reducing environmental impact also strengthens our business performance. By offering resource-efficient equipment and services that minimize waste, reduce the use of natural resources and extend equipment lifecycles, our Group enhances its competitiveness in the global market.

Clients, especially in industries such as mining, increasingly demand solutions aligned with their sustainability goals, making TAKRAF Group's environmentally conscious offerings a key competitive advantage.



1,400 t/h TAKRAF Tube Conveyor, Bulgaria

# 05 – Resource Use and Circular Economy

## Resource Use and Circular Economy Strategies

TAKRAF Group's approach to resource use and the circular economy focuses on four key areas:



**Business Operations:** TAKRAF Group emphasizes responsible resource use in its day-to-day activities, optimizing resource inputs, ensuring the efficient use of materials, while also focusing on reducing overall waste, particularly in manufacturing processes.



**Product Impact:** Our equipment is increasingly designed with circular economy principles, minimizing resource inputs and enabling refurbishment, reuse and recycling. At the end of their lifecycle, machines generate less waste, conserve materials and reduce environmental impact, while extending equipment life and decreasing the need for new raw materials.

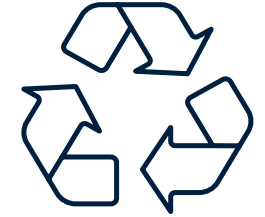


**Service Impact:** TAKRAF Group's services help clients optimize resource use. Our specialists guide clients throughout the entire process, from selecting the right equipment to ensuring that the equipment operates efficiently and sustainably. By designing and providing equipment that is robust, long-lasting, and easy to maintain, TAKRAF Group helps clients reduce waste. Additionally, our aftersales teams provide timely repairs and maintenance to maximize equipment lifespan and minimize downtime.



**R&D Efforts:** R&D activities focus on enhancing resource efficiency, reducing wear and tear, extending service intervals and streamlining maintenance. The ultimate goal is to reduce waste and resource inputs while improving performance and sustainability. Through in-house and on-site testing, TAKRAF Group develops solutions that meet client needs while advancing circular economy objectives.

Around



# 80%

of our products are recyclable\*

\*as a large proportion is made of steel.



DELKOR BQR Flotation Cells for gold, Australia

### Actions to Reduce Water Use

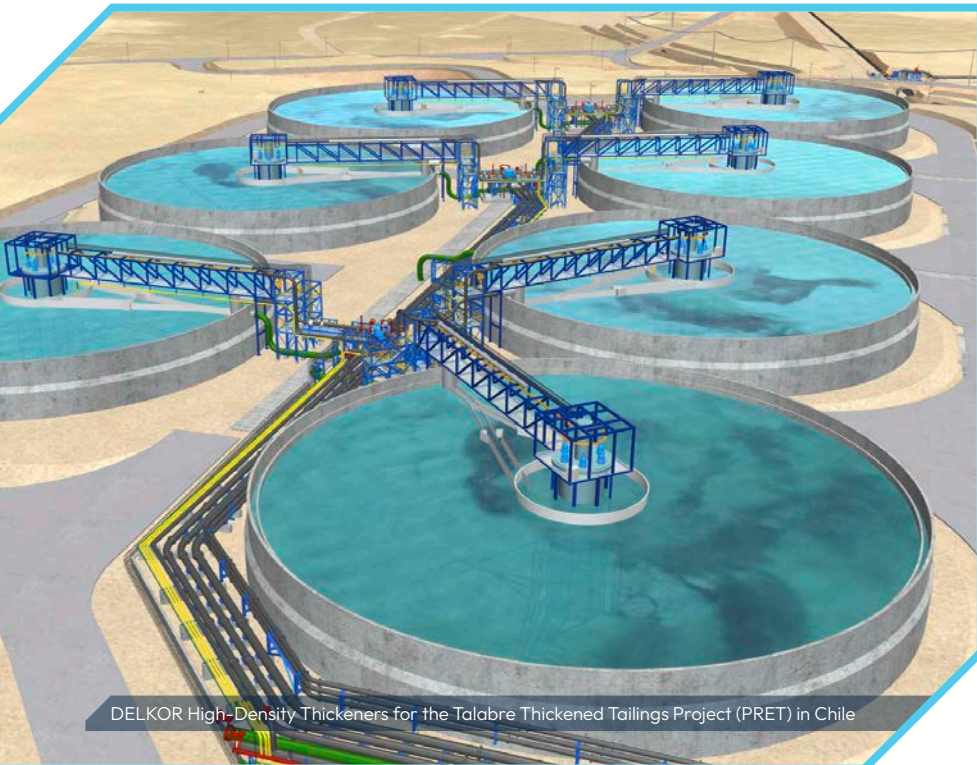
TAKRAF Group has introduced several innovative products and services to enhance resource efficiency across the value chain. For example, in collaboration with its conveyor drive partner, the Group applies GCDs to conveyor drive pulleys. GCDs eliminate the need for a gearbox, reduce the system's footprint, and significantly decrease the number of wear parts. This innovation not only increases efficiency and reliability but also minimizes maintenance requirements, helping to reduce both resource use and waste, not to mention the reduction in emissions.

Major maintenance projects in 2024 include TAKRAF's Product & Service Center's in Lauchhammer, Germany, and TAKRAF USA's service & aftermarket team's assistance in maintenance activities at a Guinean mining company's wagon unloading (railcar dumper) and crushing facility.

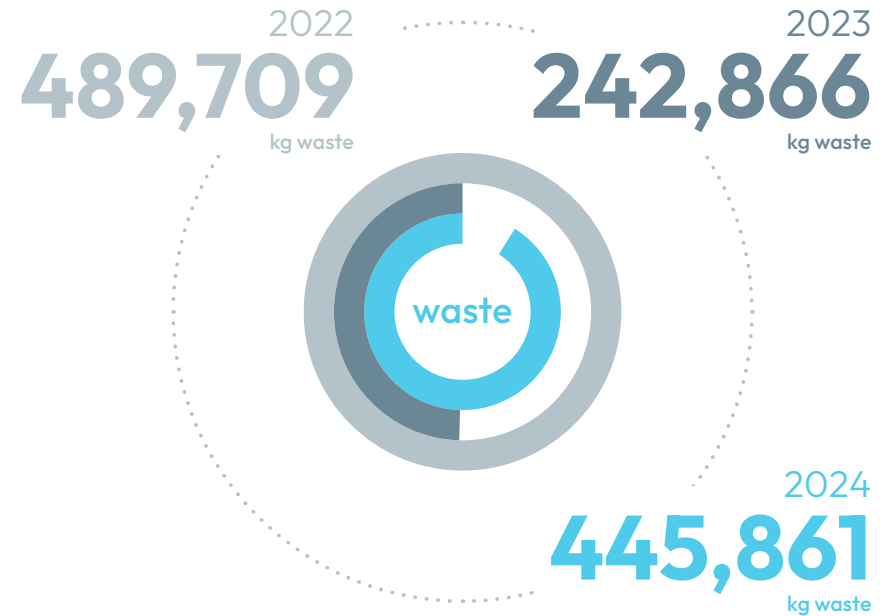
### Resource Inflows and Outflows

From the outset, TAKRAF Group designs its products to be durable, fully repairable and refurbishable. Spare parts are readily available or can be manufactured to meet client needs, extending product life and reducing waste\*. With recyclable material such as steel as the primary component, around 80% of the Group's products can theoretically be recycled at the end of their lifecycle, reducing environmental impact and supporting the circular economy. Waste generation has fluctuated over recent years: 489,709 kg in 2022, decreasing to 242,866 kg in 2023, and rising to 445,861 kg in 2024, with the majority being non-hazardous.

\*as per the European Union's Waste Framework Directive



DELKOR High-Density Thickeners for the Talabre Thickened Tailings Project (PRET) in Chile



# Social Responsibility



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# 01 – Commitment to Our Own Workforce

## For a Diverse and Equitable Workforce

At TAKRAF Group, we are proud of our workforce, which averaged 953 employees in 2024, with approximately 16% female and 84% male representation. We believe that diversity and equal opportunity are essential drivers of success and innovation.

Our Employment and Human Rights Policy further underlines our commitment to fair treatment and non-discrimination for all employees and service providers. We work actively to prevent bias and foster equal opportunities throughout the organization.

For example, TAKRAF Group ensures fair and competitive wages through benchmarking, local assessments and collective agreements, aligning compensation with national and international standards. Furthermore, TAKRAF Group fosters inclusion by complying with anti-discrimination laws, employing people with disabilities and encouraging their applications where roles are suitable.

In 2024, no incidents of discrimination or severe human rights impacts were reported within TAKRAF Group operations.

Because employee perspectives are crucial, we actively engage with our workforce and, where relevant, their representatives on projects, policies and processes that may impact them. This collaboration ensures that diverse voices are heard across all levels of TAKRAF Group.

Through regular performance reviews, tailored training programs and new digital tools that optimize learning and development processes across the entire group, we invest globally in the professional development of our employees.



# 953

average number of employees in 2024

### For a Healthy and Safe Workforce

The health and safety of our stakeholders remain at the heart of our operations and form the foundation of our Zero Harm approach. Guided by our comprehensive QHSE Policy, we ensure that employees, clients and partners alike benefit from a safe and sustainable working environment. When it comes to health and safety, we make no compromises.

This is reflected in key figures: 85% of our employees are covered by certified systems, zero fatalities and a recordable accident rate of 1.61 in 2024.



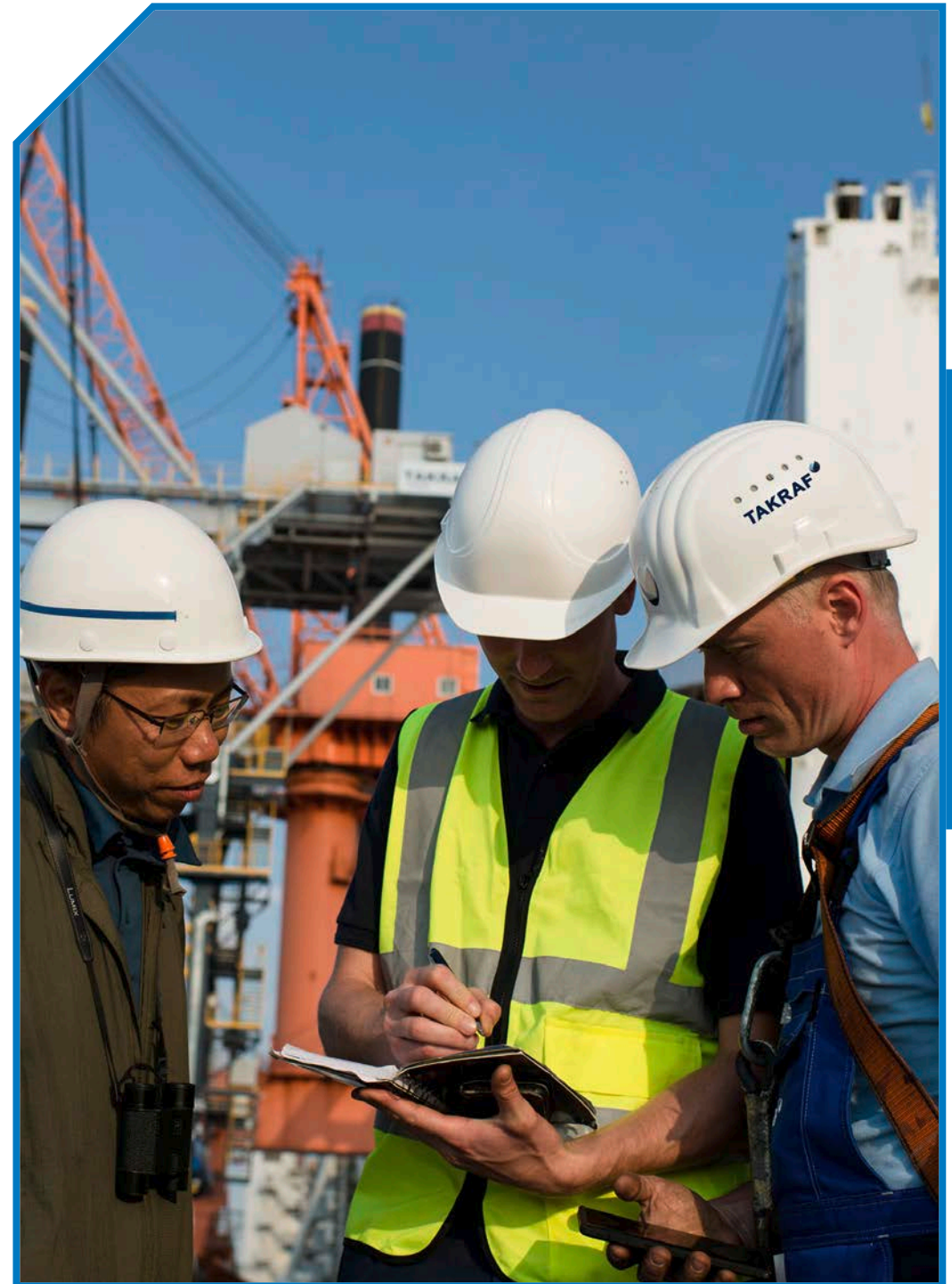
employees with certified coverage

1.61

Accident rate

Our employees also benefit from comprehensive social protection, with TAKRAF Group meeting or exceeding legal obligations in all countries of operation. Furthermore, employees across all countries are entitled to family-related leave in line with national regulations, with flexible systems supporting work-life balance.

Finally, data security and privacy are safeguarded as top priorities, as trust in these areas is essential to maintaining strong and lasting relationships with our workforce.





## 02 – Commitment to Workers in the Value Chain

### For Safe Global Operations

Our commitment to health, safety, and human rights extends far beyond our own workforce – it applies equally to all workers across the value chain. The well-being of everyone connected to our business is integral to our success and we remain dedicated to our Zero Harm approach, ensuring safety and dignity at every level.

As part of our quality assurance and purchasing policy, supported by regular audits, we require suppliers to uphold occupational safety standards. In addition, we are currently developing a Supplier Code of Conduct to strengthen expectations around safety, fairness and human rights.



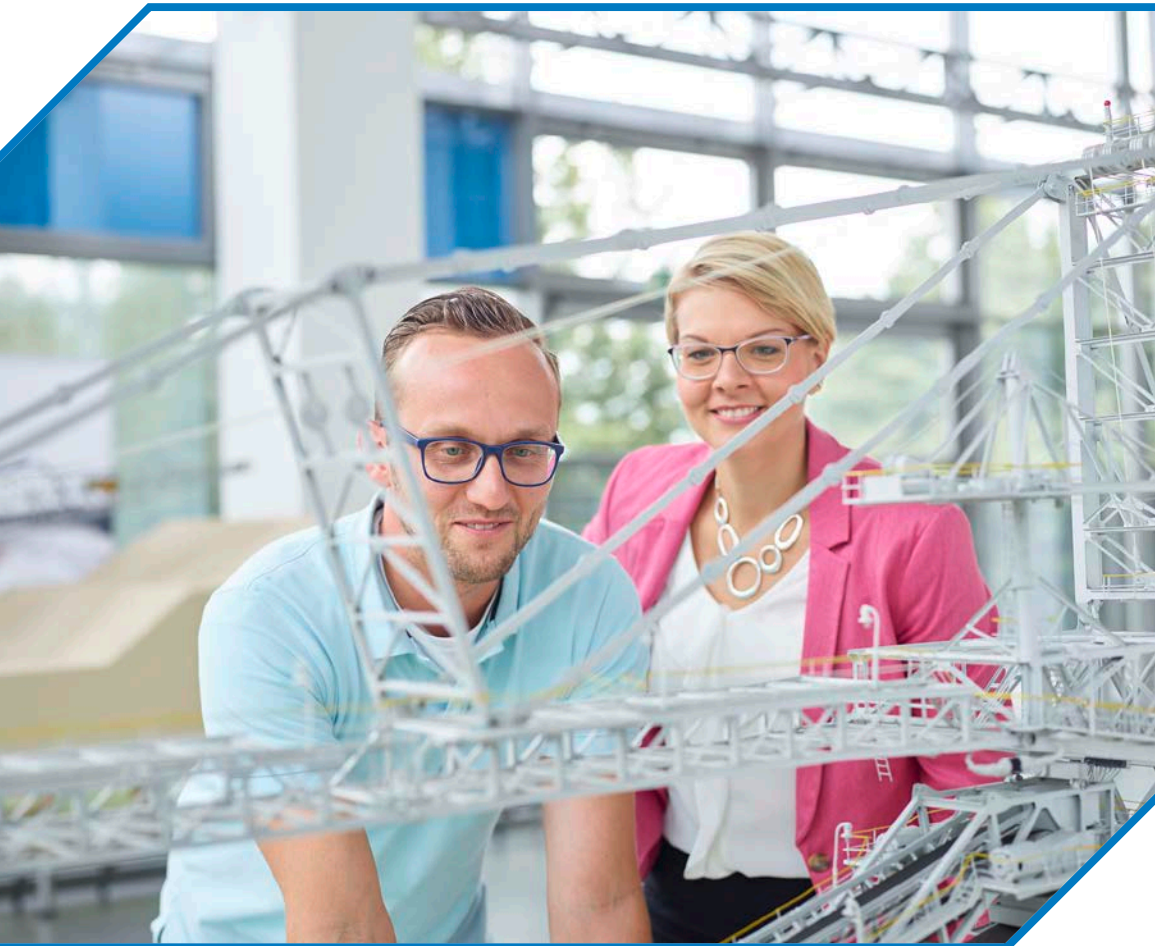
TAKRAF Sizer Assembly in the Product & Service Center in Lauchhammer, Germany

We implement clear procedures to prevent, detect and address misconduct, with transparent whistleblowing processes that enable workers and employees to safely report concerns. Importantly, TAKRAF Group is not aware of any severe human rights issues or incidents connected to workers in the value chain.

By holding ourselves and our partners accountable, we foster a culture of integrity and responsibility that protects people and builds trust across all of our global operations.



## 03 – Commitment to Clients and End-Users



### For a Professional and Reliable Cooperation

At TAKRAF Group, we extend our commitment to diligence and responsibility to our clients and end-users, applying the same rigorous standards that guide our own workforce. Our dedication to Quality, Health, Safety, and Environment (QHSE) principles shapes every step – from designing equipment and services to managing client expectations and providing expert consultations on implementation and usage.

To prevent or mitigate severe negative impacts on consumers and end-users, we apply systematic risk assessments, constructive and control measures, as well as proven instruments such as installation manuals, handover procedures, safety management and maintenance plans. These measures safeguard reliability, reduce risks and ensure the long-term safety of our solutions.

We continuously track and assess the effectiveness of these actions through structured processes, including incident investigations, compliance management, handling of defective products and services, and warranty

tracking. This feedback loop ensures continuous improvement and reinforces our accountability towards clients and end-users.

Equally important, we prioritize data security and privacy. Protecting sensitive information is a cornerstone of our client relationships and we ensure that our technologies and services comply with strict data protection regulations worldwide.

By combining technical excellence with responsibility and transparency, TAKRAF Group delivers safe, reliable and sustainable solutions that create lasting value for clients and end-users across the globe.

# Governance

Commitment to Governance and Ethical Business Conduct

page

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# 01 – Commitment to Governance and Ethical Business Conduct

At TAKRAF Group, we are committed to operating in full compliance with all applicable laws and regulations across every area of our business. Integrity forms the foundation of our corporate culture, guiding us with transparency, ethical behavior and robust measures against bribery and corruption in every interaction with employees, clients, suppliers and stakeholders.

To uphold these principles, we rely on a strong framework of policies, including our Code of Conduct, Anti-Bribery Policy, QHSE Policy and Transparency Policy. In 2024, we reinforced this commitment by rolling out group-wide training on the Code of Conduct and Fundamentals of Compliance. In the same year, we also established the role of Head of Group Legal, Compliance and Insurance to further strengthen governance structures across the organization.

We are proud to be a certified applier of internationally recognized standards, such as ISO 9001 for Quality Management, ISO 14001 for Environmental Management and ISO 45001 for Management Systems.

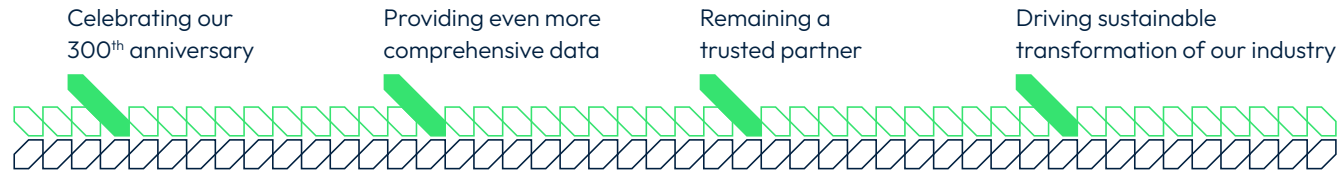
In addition, we provide a secure and transparent whistleblowing mechanism, fully compliant with European and German law. This ensures that employees and stakeholders can safely raise concerns, which are promptly addressed in line with our accountability commitments.

Governance and responsibility also extend to our value chain. We carefully manage supplier relationships to ensure alignment with our ethical standards and operate in full compliance with international sanction regimes.

As advocates for ESG principles, we actively encourage our clients to select solutions and equipment that deliver the greatest positive environmental impact. Even when these go beyond regulatory requirements or entail higher costs. This reflects our long-standing dedication to sustainability, responsibility and safety, ensuring that ethical business conduct remains central to everything we do.



# The Road Ahead

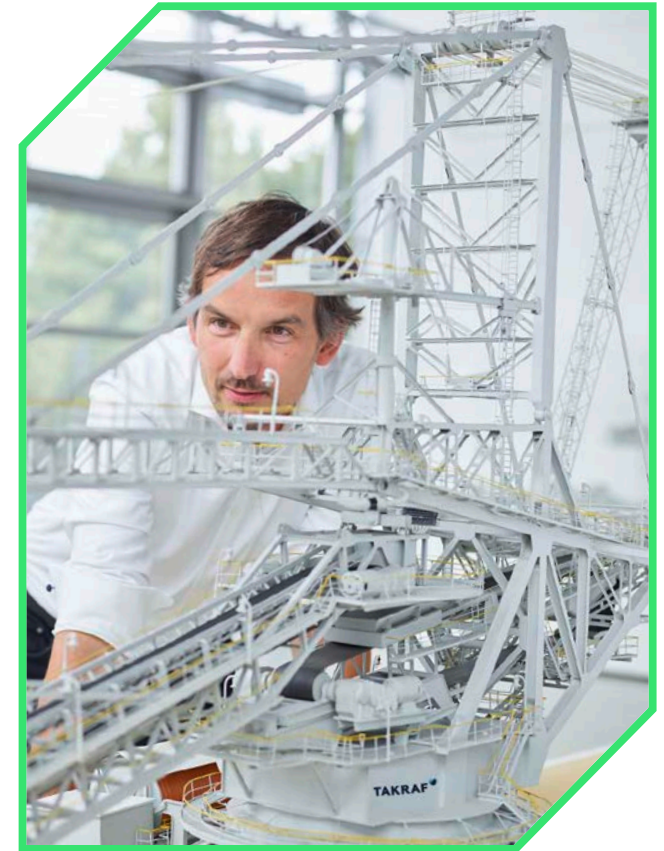


Our second sustainability report marks another important milestone in TAKRAF Group’s ongoing journey toward greater transparency, accountability and impact.

Building on the foundation set in 2023, we have deepened our understanding of ESG principles, refined our processes and expanded our reporting to provide a clearer picture of where we stand and where we are headed. The learnings gained over the past year are helping us sharpen our strategy and strengthen the integration of sustainability into every aspect of our business.

As we look ahead to 2025, we approach a defining moment in our history: TAKRAF Group’s 300<sup>th</sup> anniversary. Three centuries after our foundation in Lauchhammer, Germany, we stand as a global technology provider with a proud legacy of engineering excellence and innovation. Yet our focus is not only on honoring the past but also on preparing for the future.

The path forward is clear: we will continue to enhance transparency, set ambitious new benchmarks and provide increasingly comprehensive data on the impact of our initiatives. Just as importantly, we will remain a trusted partner for our clients, employees, stakeholders and communities – working together to drive the sustainable transformation of our industry.



For questions, feedback, or further information about our solutions, please contact us at [info@takraf.com](mailto:info@takraf.com).

# Glossary



<b>CEO</b>	Chief Executive Officer
<b>CSRD</b>	Corporate Sustainability Reporting Directive
<b>DST</b>	Dry Stack Tailings
<b>ESG</b>	Environmental, Social and Governance
<b>ESRS</b>	European Sustainability Reporting Standards
<b>ETP</b>	Effluent Treatment Plant
<b>EU</b>	European Union
<b>GCDs</b>	Gearless Conveyor Drives
<b>GHG</b>	Greenhouse Gas
<b>HBFs</b>	Horizontal Belt Filters
<b>HPGRs</b>	High Pressure Grinding Rolls
<b>IPCC</b>	In-Pit Crushing and Conveying
<b>ISO</b>	International Organization for Standardization
<b>LTI</b>	Lost Time Injury
<b>PRET</b>	Talabre Thickened Tailings Project
<b>R&amp;D</b>	Research and Development
<b>SDGs</b>	Sustainable Development Goals
<b>QHSE</b>	Quality, Health, Safety and Environment





**TAKRAF**<sup>®</sup>  
For Mining with Meaning.



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